J. Symbolic Computation (1988) **5,** 1

Editorial

This special issue of the *Journal of Symbolic Computation* evolved from the nearly simultaneous submission of a number of papers treating algorithmic problems in real algebraic geometry to the journal. Additional papers were then solicited from researchers active in the field and a complete bibliography on the past research on quantifier elimination for real closed fields was compiled. As a result, the special issue is now the first collection of papers devoted to algorithms in real algebraic geometry. It is intended both to exhibit the present state of research and to facilitate access to the field for those who wish to enter. We hope that it stimulates further research in this challenging and promising area, where significant results have been achieved in recent years, but much more remains to be done. In particular, it is crucial that the geometric reasoning community be attracted to the new algebraic techniques and, conversely, that pure mathematicians working in real algebraic geometry become interested in the algorithmic problems inherent in advanced geometric reasoning applications.

It is the policy of the *Journal of Symbolic Computation* to stimulate, by special issues, this kind of interaction between research communities and to provoke new research activities. The *Journal of Symbolic Computation* will be proud to continue to serve as a forum for research in the algorithmic aspects of real algebraic geometry.

Dennis Arnon
Bruno Buchberger